

**U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT**

I. Heading

Date: May 31, 1995

Subject: Pyridium Mercury Disposal Site No. 1
Village of Harriman, Orange County, NY

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Removal Action Branch

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6/7/95

POLREP: Three (3)

II. Background

SITE No.:	EV
Delivery Order:	2001-02-060
Response Authority:	CERCLA
CERCLIS No.:	N/A
NPL Status:	Not on NPL
State Notification:	NYSDOH Notified
Action Memorandum Status:	Approved Under Preparation
Start Date:	January 9, 1995
Demobilization Date:	April 5, 1995
Completion Date:	April 7, 1995

III. Site Information

The Pyridium Mercury Disposal Site No. 1 (Pyridium 1) is a trailer park located at the intersection of State Route 17M and Harriman Heights Road in the Village of Harriman, Orange County, New York. Five mobile home trailers are located at the trailer park. All the trailers were occupied as residential dwellings.

A white clay-like material, discovered at the trailer park, was used to fill low-lying areas of a wetland. This material was reportedly a waste product from the production of niacinamide by the Pyridium Corporation during the 1940's and 1950's. Nepera Inc. of Harriman, New York, currently occupies and operates the facility previously operated by the Pyridium Corporation.

On October 20, 1994, the United States Environmental Protection Agency (EPA) collected a composite waste sample for waste characterization and mercury speciation. The sample was analyzed for Target Compound List (TCL) parameters, Target Analyte List (TAL) parameters and toxicity by the Toxicity Characteristic Leachate Procedure (TCLP).

Although the TCLP results are below regulatory limits, the TAL analytical results indicate the presence of mercury at an estimated concentration of 130 milligrams per kilogram (mg/kg). All the other compounds detected were below the New York State Department of Environmental Conservation (NYSDEC) recommended soil cleanup objectives.

Mercury speciation analytical results indicated that the sample contained no significant quantities of elemental mercury, mono-methyl mercury, or dimethyl mercury. When the sample was dissolved in an acid leach test, the mercury +2 ion leachate concentration was essentially the same as the total mercury concentration. Based on these results, the laboratory concluded that the sample was a chemical substrate contaminated with a mercuric or mercurous salt.

On November 17, 1994, the EPA Environmental Response Team (ERT) and the Response Engineering and Analytical Contractor (REAC) collected dust samples in each of the mobile homes at the trailer park. The analytical results of the dust sampling indicated mercury concentrations ranging from 0.84 mg/kg to 26.8 mg/kg.

On November 28, 1994, Nepera Inc. of Harriman New York signed an Administrative Order on Consent (AOC) with EPA agreeing to fund relocation of the residents of the trailer park. Nepera has distributed relocation settlements to eligible residents. The amount of the settlement was based on federal relocation guidelines.

IV. Response Information

A. Situation

1. Current situation

On January 9, 1995, verbal authorization of the current removal action was approved by the EPA Director of the Emergency and Remedial Response Division. An Action Memorandum, confirming verbal authorization has been

prepared and submitted to the Director. The scope of work for the removal action included decontamination, removal and disposal of the mobile homes storage sheds and decks from the trailer park; disconnection of water, sewer and electric utilities; removal of heating oil and propane storage tanks; and posting of warning signs.

On January 9, 1995, the site was mobilized. Trailer No. 1 was decontaminated and outfitted as the command post. A deck, attached to trailer No. 1, was disassembled and moved to a new location at the owner's request. A fence around trailer No. 5 was dismantled. The site demobilized on January 12, 1995.

By February 13, 1995, four of the five trailers were vacated. Nepera, Inc. funded the residents' relocation. The remaining resident vacated her trailer on March 6. With the permission of the owners, EPA determined that trailers No. 3 and No. 5 would be decontaminated, transported off-site and sold.

Because of their age and poor condition, EPA determined that trailers No. 1, No. 2 and No. 4 would be demolished. Metal from the trailers would be separated and recycled as scrap. The remaining material from the trailers would be disposed of as non-hazardous debris at a Subtitle D landfill.

2. Removal activities to date

a. Site Preparation

On February 13, 1995, the site was mobilized. On February 13, the electricity for trailers No. 3, No. 4 and No. 5 was disconnected. On March 6, the electricity for trailer No. 1 and No. 2 was disconnected after the resident of trailer No. 2 had completed her relocation.

On February 14, the Colman Gas Company transported the empty, propane gas tank from trailer No. 5 off-site.

On February 15, the owner of trailer No. 3 removed a snowmobile and some of his personal property from a shed behind the trailer.

On February 21, the owner of trailer No. 3 transported his heating oil tank off-site for use at his new residence.

On February 16, a licensed plumber disconnected and capped sewer lines for trailers No. 1, No. 3, No. 4 and No. 5. On March 7, the sewer line for trailer No. 2 was disconnected and capped.

On February 22, the owner of trailer No. 3, also dismantled a wood deck and metal awning on trailer No. 5 and transported them off-site.

On March 8, C. R. Warner, Inc. of Woodstown, New Jersey, removed 200 gallons of heating oil from the fuel tanks of the trailers No. 1 and No. 2. The empty tanks were cleaned and disposed of as scrap metal.

On March 8, the water service line to the trailer park was disconnected after trailer No. 2 was vacated.

b. Decontamination of Trailers No. 3 and No. 5

On February 13, the decontamination of trailer No. 3 and No. 5 was initiated. All remaining furniture and carpeting were removed from the trailers and placed in roll-offs for disposal. The trailers were vacuumed to remove any dust or dirt.

On February 20, the heating ducts under the trailers were cleaned out. An air compressor was used to push dust particulate through the duct into a large HEPA vacuum. Afterwards, a snake with a brush attachment was pulled through the duct to loosen any remaining dust. The ducts were then vacuumed a final time with the HEPA-VAC unit.

Finally, all the surfaces in the trailers were washed three times with soap and bleach. Decontamination of the interiors of trailers No. 3 and No. 5 was completed on February 20, 1995.

During decontamination of trailers No. 3 and No. 5, air monitoring was conducted with the Jerome Mercury Vapor Detector and a Mini-Ram. No readings for elemental mercury above a background of 0 milligram per cubic meter (mg/m^3) were detected in either trailer. However, as a precautionary measure, the decontamination work in the trailers was upgraded to Level C after the Mini-Ram detected a time-weighted average (TWA) of $0.49 \text{ mg}/\text{m}^3$ for total dust particulates.

c. Vacuum Sampling of Trailers No. 3 and No. 5

On February 20, the EPA requested that the Region II Technical Assistance Team (TAT II) conduct vacuum air-assisted sampling in Trailers No. 3 and No. 5. Analytical results were used to determine the loading contaminant and mercury concentration in dust to verify that the trailers had been properly decontaminated prior to their sale and off-site transportation.

On February 21, TAT collected six vacuum air samples from trailers No. 3 and No. 5. The samples were collected from three areas of heavy use in each trailer: the kitchen floor, the hallway floor and the bathroom wall. A surface area of 0.0625 square meters (m^2), (approximately 10" x 10"), was vacuumed for a period of 4 minutes with a vacuum apparatus which consisted of a high-flow pump, a filter cartridge and a plastic attachment.

The samples were analyzed at MDS Laboratory in Reading, Pennsylvania for a mercury concentration in dust and mercury mass per surface area. The laboratory could not calculate the mercury concentration in dust because the sampling filters were not weighed prior to sampling. However, the laboratory was able to calculate the mercury mass per surface area from this sampling event.

On February 24, EPA received the analytical results of vacuum sampling for mercury mass per surface area. Mercury mass per surface area ranged from below the detection limit to 7.04 micrograms per square meter (ug/m^2). EPA submitted the analytical results to the Agency of Toxic Substance and Disease Registry (ATSDR) for review. ATSDR requested that EPA resample the trailers and analyze the samples for mercury concentration in dust.

On February 27, six vacuum samples were collected from trailers No. 3 and No. 5 at locations in close proximity to the previous vacuum samples. The laboratory provided pre-weighed sample filters and was able to calculate the mercury concentration in dust and mercury mass per surface area.

On March 3, EPA received the analytical results of the vacuum sampling. Mercury mass per surface area ranged from below the detection limit to 7.568 ug/m^2 . Mercury concentration in dust ranged from below the detection limit to 24.3 ug/kg .

d. Demolition of Trailers No. 1, No. 2 and No. 4

On February 20 and 21, ERCS cleared vegetation and debris from around the trailers in preparation for demolition of trailers No. 1, No. 2 and No. 4. On February 23 and 24, all the vegetation was mulched in a wood chipper.

On February 21 and 22, trailer No. 4 was demolished. Metal from the trailer was separated and placed into a roll-off for recycle. Other material from the trailers was placed into a second roll-off, along with carpeting and other furnishings removed from trailers No. 3 and 5.

On March 7, trailer No. 2 was demolished. On March 9, trailer No. 1 was demolished. Metal was separated from the other debris and placed into their respective roll-offs for recycle and disposal. On March 10, demolition was completed and the site was demobilized.

A total of ten roll-offs of metal and debris were transported off-site to the Orange County Landfill in Goshen, New York. Three of the ten roll-offs containing scrap metal were recycled within the county facility. Seven of the roll-offs containing non-hazardous debris were disposed in the sanitary landfill.

e. Removal of Trailers No. 3 and No.5

Analytical results from the vacuum sampling were submitted to the ATSDR for review. In a Record of Activity, signed April 3, 1995, the ATSDR concluded that the mercury concentrations, detected in trailers No. 3 and No. 5, were below levels of health concern. Subsequently, trailers No. 3 and No. 5 were sold privately by their respective owners and transported off-site by the buyers.

f. Site Security

On April 4, 5 and 6, approximately 200 feet of 6 foot high chain link fence was installed on the site perimeter along Route 17M. Additionally, 500 feet of wooden snow fence was placed on the other three sides of the site property line. Warning signs were hung on the chain link and snow fence to discourage trespassers from entering the site.

On April 7, site activities were concluded upon completion of the work by the ERCS contractor.

3. Enforcement

The mercury waste found on site was reportedly generated from the production of niacinamide by the Pyridium Corporation in the 1940's and 1950's. Nepera, Inc. owns and operates the facility, previously operated by Pyridium Corporation.

Nepera Inc. has funded the relocation of the trailer park residents under an

AOC, signed with EPA on November 28, 1994. Federal relocation guidelines were used to determine settlements for eligible residents.

B. Next Steps

Future activities include the removal of contaminated soil and property restoration.

C. Key Issues

None.

V. Cost Information (as of 5/12/95)*

	Project Ceiling	Cost to Date	Funds Remaining
ERCS Contractor Costs	\$ 75,000	\$ 51,000	\$ 24,000
TAT Contractor Costs	15,000	11,000	4,000
EPA Costs	10,000	9,000	1,000
TOTAL	100,000	71,000	29,000

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

VI. Disposition of Wastes

N/A

